

Name: _____

Date: _____

FOIL when $A \neq 1$ SLTN (version 101)

FOIL the expressions shown below:

1. $(7x + 2)(2x + 8)$

$$\begin{aligned} &(7)(2)x^2 + (7)(8)x + (2)(2)x + (2)(8) \\ &(14)x^2 + (56)x + (4)x + (16) \\ &14x^2 + 60x + 16 \end{aligned}$$

2. $(5x + 6)(4x - 4)$

$$\begin{aligned} &(5)(4)x^2 + (5)(-4)x + (6)(4)x + (6)(-4) \\ &(20)x^2 + (-20)x + (24)x + (-24) \\ &20x^2 + 4x - 24 \end{aligned}$$

3. $(9x - 7)(-7x - 8)$

$$\begin{aligned} &(9)(-7)x^2 + (9)(-8)x + (-7)(-7)x + (-7)(-8) \\ &(-63)x^2 + (-72)x + (49)x + (56) \\ &-63x^2 - 23x + 56 \end{aligned}$$

4. $(7x - 9)(4x - 5)$

$$\begin{aligned} &(7)(4)x^2 + (7)(-5)x + (-9)(4)x + (-9)(-5) \\ &(28)x^2 + (-35)x + (-36)x + (45) \\ &28x^2 - 71x + 45 \end{aligned}$$

5. $(-4x - 2)(3x + 9)$

$$\begin{aligned} &(-4)(3)x^2 + (-4)(9)x + (-2)(3)x + (-2)(9) \\ &(-12)x^2 + (-36)x + (-6)x + (-18) \\ &-12x^2 - 42x - 18 \end{aligned}$$

FOIL the expressions shown below:

6. $(4x - 5)(6x + 6)$

$$\begin{aligned}(4)(6)x^2 + (4)(6)x + (-5)(6)x + (-5)(6) \\ (24)x^2 + (24)x + (-30)x + (-30) \\ 24x^2 - 6x - 30\end{aligned}$$

7. $(-2x - 2)(-4x - 6)$

$$\begin{aligned}(-2)(-4)x^2 + (-2)(-6)x + (-2)(-4)x + (-2)(-6) \\ (8)x^2 + (12)x + (8)x + (12) \\ 8x^2 + 20x + 12\end{aligned}$$

8. $(2x + 9)(3x + 2)$

$$\begin{aligned}(2)(3)x^2 + (2)(2)x + (9)(3)x + (9)(2) \\ (6)x^2 + (4)x + (27)x + (18) \\ 6x^2 + 31x + 18\end{aligned}$$

9. $(3x + 2)(6x - 7)$

$$\begin{aligned}(3)(6)x^2 + (3)(-7)x + (2)(6)x + (2)(-7) \\ (18)x^2 + (-21)x + (12)x + (-14) \\ 18x^2 - 9x - 14\end{aligned}$$

10. $(6x - 9)(-4x + 5)$

$$\begin{aligned}(6)(-4)x^2 + (6)(5)x + (-9)(-4)x + (-9)(5) \\ (-24)x^2 + (30)x + (36)x + (-45) \\ -24x^2 + 66x - 45\end{aligned}$$